

Q79: What is the partnership relationship between NASA and AFOSR?

A79: AFRL/AFOSR and NASA already have multiple existing partnerships. In ULI, we are finding common ground between military and civil applications and are bringing diverse communities together.

Q78: There is guidance for Topics 1-6 in the Strategic Implementation Plan. Is there a similar guidance in a Topic 7 Implementation Plan? What program does Topic 7 support?

A78: For AFOSR, topic 7 does not support any specific program, but is fundamental science. For NASA too, this topic 7 solicitation stands on its own. There is no Topic 7 Implementation Plan.

Q77: For subsonic aircrafts, are there any specific requirements that needs to be taken into account for any design modification research?

A77: Yes, see Strategic Thrust 3 in the NASA Aeronautics Strategic Implementation Plan. See for example, Table 5 in the Plan.

Q76: What does “demonstrated ability” in the Technical Merit evaluation criterion mean?

A76: By showing that you and your team have the skills and experience to perform the proposed tasks.

Q75: We might have more questions once we start drafting the proposals. Will there be another Q&A session, perhaps a month from now?

A75: There will be no more applicant's workshop for this ULI solicitation. Please feel free to reach out to the POCs named in the ULI solicitation with your questions.

Q74: What is the success criteria for education?

A74: I assume the questioner meant ULI proposal evaluation criteria for education. Please see the ULI solicitation evaluation criteria “Innovative Teaming and Education” and its description.

Q73: Where does Urban Air Mobility fit in your seven topics?

A73: Many of the ULI topics can address Urban Air Mobility (UAM). For example: UAM air traffic management could be under Topic 1, UAM vehicle design under Topic 4, UAM autonomy under Topic 6.

Q72: Will the deadline for Step-A proposals stay the same if stay at home order is extended?

A72: As of now, the due date for Step-A proposals remains June 30, 2020.

Q71: If we want to work on some analysis of advanced material and design. Can we work on NASA's released concept designs?

A71: Cannot answer this question in general, i.e., for all potential cases. However, one can imagine scenarios where working on advanced material and design using NASA released concept designs would be in ULI scope.

Q70: Can the proposed solution be regulatory framework?

A70: Yes, as long as the concept and outcome fits the Strategic Implementation Plan. An example could be a proposal in Topic 2 that accelerate progress toward achieving the near term outcome "Supersonic Overland Certification Standard Based on Acceptable Sonic Boom Noise."

Q69: What steps will be taken to protect our ideas if not successful?

A69: Proposals will only be reviewed by government personnel. Our strong internal procedures have protected proposed ideas in the past.

Q68: Is the expectation that the "center" or research group be able to obtain further funding from other agencies after the project duration?

A68: There is no expectation that the proposer needs to come up with funding from other agencies during the ULI proposal stage.

Q67: For vertical lift, do you mean helicopters?

A67: For vertical lift see strategic thrust 4 in the Strategic Implementation Plan. Vertical lift research focuses on urban air mobility and can include helicopters.

Q66: Do novel measurement techniques in Topic 7 need to be developed and exercised only at the university facilities (such as small-scale shock tubes), or will they also need to be demonstrated at NASA / Air Force test facilities?

A66: For Topic 7, there is no requirement for using NASA/Air Force test facilities. Although for the applied portion of Topic 7, it might not be a bad idea to demonstrate your proposed measurement technique in a more relevant environment.

Q65: Will COVID-19 change NASA's priorities?

A65: Cannot speak for NASA's priorities. With regards to ULI, the solicitation continues to remain the same.

Q64: Is there any advantage in partnering with NASA SBIR companies?

A64: There is no ULI evaluation criteria that takes into account teaming with NASA SBIR companies.

Q63: How critical is having multiple university partners to success in a winning proposal?

A63: Teaming is based on bringing the appropriate skills to do the proposed work. The ULI solicitation also states "Building and applying a diverse, multi-disciplinary team is part of the strategic leadership role entrusted to awardees of this solicitation" and "When putting together their teams, lead institutions are encouraged to explore new partnerships in addition to leveraging those they have previously developed." Reviewers will consider all of these in their evaluations. Please see the solicitation, the ULI goals, and the evaluation criteria to decide for yourself the importance of multiple university partnerships.

Q62: Would it be possible to share a list of participants? Participants can be polled for the kinds of partnerships that they would welcome.

A62: We do not share the participants list. Instead, please use the Interested Partner List at https://nari.arc.nasa.gov/uli_partners.

Q61: So, we cannot include our list of AFRL collaborators in a Topic 7 Step-A proposal?

A61: Correct, you cannot list AFRL collaborators in a Topic 7 Step-A proposal. If you know of AFRL personnel already working in the same area, you can mention this in your proposal. You can also say in your proposal that if selected you will seek out collaboration with AFRL personnel.

Q60: AFRL partners are allowed but also under blackout - could that be clarified? How is the partnership established under communications blackout?

A60: See related answers A59 and A61. For topic 7, AFRL is currently under blackout. AFRL partners will not receive funds from this award, there are other mechanisms to fund AFRL personnel. If the idea is good and is selected then at that point can seek out partnerships with AFRL.

Q59: Are we allowed to approach AFRL researchers for feedback on proposal ideas? Or, are they under blackout too?

A59: AFRL researchers are under blackout too regarding Topic 7 proposal ideas but not for topics 1-6.

Q58: Does your Interested Partner List also include industry?

A58: Yes, the website https://nari.arc.nasa.gov/uli_partners also includes industry contacts who are interested in ULI. Please send email to hq-univpartnerships@mail.nasa.gov to include your contact information.

Q57: You mentioned that there is no entry level TRL. Does this also hold for the applied version Topic 7. This seems to be a contradiction since 6.1 is typically TRL 1-2 and 6.2 is typically 3-4. Can you please clarify?

A57: In Topic 7 applied research, one can propose TRL changes from 1-2 or 2-3. It is guided by your proposed research plan.

Q56: What is the best way for Partner organizations to team up with Universities?

A56: We do not know how teams form and so cannot answer this question. However, one can sign up for the Interested Partners List at the website https://nari.arc.nasa.gov/uli_partners. This site gets lots of daily visits when ULI solicitations are open. Soon after the workshop, we received confirmation that this list has already proved useful for at least one team.

Q55: Are early career PI's encouraged to collaborate with more established professors? Or, does that not matter as long as the teams are appropriate?

A55: There is no ULI evaluation criteria that takes into account the faculty length of service. Whereas there are sub-criteria like “Demonstrated ability and technical breadth of proposed team” and “Integrated team contributes to overall proposal strength.”

Q54: Can we resubmit an unsuccessful proposal from last year?

A54: Yes. Consider strengthening your proposal by addressing previous review comments.

Q53: Is ULI interested in funding "budget project" that cost less than \$1M per year?

A53: As long as the proposal meets the ULI goals and the requirements of the solicitation, NASA and AFRL/AFOSR are interested. Under those conditions, proposals budgeted less than \$1M/year are welcome.

Q52: How can we participate as a reviewer?

A52: Only government employees will be reviewers. See also answer A23.

Q51: Can we approach NASA for feedback regarding previously unsuccessful proposals? Feedback other than the reviewer comments we have received?

A51: NASA provides reviewer feedback to all proposers – this is the primary input for selections and non-selections. The NASA Technical POC is available for discussion when not in a blackout period. With the release of this ULI solicitation, the POC is also in the blackout

period and cannot have technical conversations on previously unsuccessful proposals in case they are submitted again to this ULI solicitation.

Q50: Some projects of this nature are focused on hardware. Will system engineering or computational solutions be competitive?

A50: This question at the workshop is cryptic and appeared to be for Topic 7 basic research. In that case, system engineering is not usually associated with basic research. For further clarification please contact the AFOSR POC.

Q49: If there is no oversight by NASA, am I correct in assuming that there is no requirement of a monthly progress reports or annual reports or a Final report by NASA?

A49: As stated in the ULI solicitation, NASA intends to conduct oversight through annual reviews, quarterly reviews/reports, and additional insight gained from the non-advocate peer reviews.

Q48: What is the appropriate TRL for entry and exit for projects?

A48: The solicitation does not specify a Technology Readiness Level (TRL). Feel free to be guided by the NASA Aeronautics Strategic Implementation Plan, the ULI NRA solicited research requirements, and your proposed research plan.

Q47: Can Air Force Institute of Technology (AFIT) participate?

A47: Yes, they can participate in Topic 7 for the AFOSR award but cannot receive payment from the ULI effort. For NASA awards, government entities can participate as collaborators and cannot receive funding from NASA.

Q46: Are Step B proposals that are not suggested for funding placed into a "basket" for future consideration?

A46: No, each ULI solicitation is separate. Previous proposals may be resubmitted to this solicitation.

Q45: Can we include budget for the development of training modules or educational activities?

A45: Yes for a NASA funded proposal, but no for an AFRL funded grant.

Q44: To what level should proposals integrate with other topic areas? Or, address how technology solutions would integrate?

A44: The ULI goal is to solve an important aviation problem. The proposed research solution drives the required level of integration.

Q43: Some of the topic areas are correlated in some aspect, such as Topics 1, 5 and 6. Can one proposal address two topic areas?

A43: A given proposal and its research products may be able to meet outcomes in more than one topic area and proposers may note compatibility with multiple topics. However, the solicitation states that proposers must explicitly connect their research products to specific outcomes in a single topic area. This connection to the primary topic also helps NASA identify suitable reviewers.

Q42: What level of interaction is there among award winners? Between rounds?

A42: There has been some interaction among past ULI awardees, but it has only been a limited interaction.

Q41: Are AFRL/NRL researchers allowed to be collaborators?

A41: The ULI solicitation states "Collaboration with other U.S. government agencies that adds value towards the research and development of the innovative concepts, while preserving the university leadership aspect of this initiative, is encouraged." It also states that "Collaborators may not receive funds from the NASA award." Same for the AFRL award - yes and encouraged, but funding AFRL/NRL researchers comes from a different source.

Q40: How tightly do you expect the industry partners to be integrated? Should an industry partner already be identified before the Step A is submitted, before the industry day?

A40: Innovative Teaming and Education is an evaluation criteria of Step-A. As we are seeing proposing teams already identify their industry partners in Step-A, we would recommend integrating with an industry partner in your Step-A proposal.

**Q39: Can we include budget for researchers in US companies?
Can we pay an industry partner from the ULI funds?**

A39: Yes.

Q38: Roughly, how many Step B proposals will be invited?

A38: This depends on the quality of the proposals received and the Source Selection Official. An a priori guess would be anywhere between a total of 10-20 proposals (over all topics) could be invited to Step-B.

Q37: Is NASA looking to fund projects focused on short-term challenges or long-term challenges within the industry? This impacts how quickly the transition to industry can be made.

A37: The Strategic Implementation Plan has near-, mid-, and long-term outcomes for all six Strategic Thrusts. All are in scope.

Q36: Is the current COVID19 crisis likely to affect the ULI funding?

A36: The funds for awards in ULI Round 4 (NNH19ZEA001N-ULI) solicitation has not been affected by COVID-19.

Q35: For Topic 7, how can I find more information about Air Force hypersonic transport vehicles?

A35: Topic 7 is basic research. AFRL/AFOSR is not connected to any program and so will not provide any information about Air Force hypersonic transport vehicles.

Q34: Are proprietary work allowed? In that case will information be released to public?

A34: It is NASA's intent to disseminate knowledge developed under ULI. AFOSR only sponsors public domain work. No proprietary work is allowed.

Q33: What is the boundary for basic vs. applied research?

A33: See for example DoD 7000.14. Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. Applied

research is systematic study to understand the means to meet a recognized and specific need.

Q32: For Topic 7, could universities be provided free use of government facilities to test our concepts for innovative measurement techniques?

A32: From AFRL perspective, no the facilities are not free. For NASA, same answer as A26.

Q31: The solicitation says the budget must not change by more than 7% between Step-A and Step-B. If so, is the Step-B Industry Networking Opportunity intended for partnering in a non-funded capacity?

A31: It is up to the participants to follow up on the industry networking opportunity – whether in a funded or unfunded capacity. The original intent of the networking opportunity was to see if industry may want to cost-share in the Step-B proposals.

Q30: Is the intention for Step-A proposals to include industry partners?

A30: Step-A proposals require a list of partners known to date. This list may be updated in Step-B. ULI does want proposers to explore a range of partnerships that includes industry.

Q29: Can we have a copy of these slides? Will the recording be available?

A29: The slides and video recording will be posted online at <https://nari.arc.nasa.gov/applicantsworkshop4>.

Q28: Can non-US students work on ULI projects?

A28: For NASA, the answer is similar to A9 - Generally yes, if the students are enrolled at the university. The eligibility requirements of the ROA-2019 apply to the proposing organization and not the individual. However, it is possible that export control requirements must be taken into account for students of a proposing organization who are not U.S. citizens or do not have permanent resident status. AFRL has

similar rules as NASA, but encourages universities to use U.S. students.

Q27: Can a given PI submit two proposals?

A27: Yes. PIs may submit more than one proposal.

Q26: Will NASA facility be free if we use them for the ULI project?

A26: Each NASA facility is managed differently. For Step-A, we would recommend you have a general discussion with the facility manager – can they accommodate you, order of magnitude cost details, who pays etc. Some NASA facilities have different rates for NASA work vs. external work. If your proposal is awarded under ULI, you can use the internal NASA rate.

Q25: Do PIs interested in responding to this solicitation need to be US citizens?

If you are on an H1B Visa in what capacity can you contribute to the ULI - can you be a Co-PI can you receive salary?

Please clarify eligibility requirements at the individual level for topics 1 thru 6, is U.S. citizenship a requirement?

A25: See answer A9 - Generally, faculty employed at U.S. universities are eligible to propose to ULI. The eligibility requirements of the ROA-2019 apply to the proposing organization and not the individual. However, it is possible that export control requirements must be taken into account for members of a proposing organization who are not U.S. citizens or do not have permanent resident status.

Q24: Are universities participating (but not leading) in previous ULI awards still eligible for new awards?

A24: Previous ULI awardees, lead and partner institutions, are eligible for awards under NNH19ZEA001N-ULI.

Q23: Can you describe the typical reviewers - NASA folks, University professors with no conflict of interest, others?

A23: All reviewers will be NASA (for Topics 1-7) and AFRL/AFOSR personnel (for Topic 7).

Q22: Does this ULI opportunity have ITAR restrictions?

A22: NASA has no ITAR restrictions. AFOSR/AFRL will not fund ITAR work.

Q21: The Applicants Workshop chart mentions ULI is for 3-5 years. Why is the ULI NRA for maximum 4 years?

A21: Solicitations for each round of ULI are different. Previous ULI awards have been for 3, 4 and 5 years. The current NNH19ZEA001N-ULI is soliciting for proposals in 3-4 year range.

***** End of Q&A from the ULI Applicant's Workshop *****